

Claims

1. Contrast media for visualization of lymph node changes, inflammatory processes or pathological changes that are associated with the specific expression of endothelial and/or leukocytic ligands, characterized in that the C-terminal end of a receptor, a receptor fragment or a group of receptors for specifically expressed endothelial ligands is coupled to the signal unit, while the N-terminal end of the signal unit that contains the binding domains is pointed away from the signal unit.

2. Contrast media according to claim 1, wherein the receptor consists of at least 2 molecules.

3. Contrast media according to claim 1, wherein at least 2 molecules show a distance of 1-8 nm at the N-terminal end or else have a distance that corresponds to the distance of the N-terminal ends of chimera molecules, thus, e.g., receptors that were substituted for the Fab fragments of immunoglobulin skeletons.

4. Contrast media according to claim 1, wherein the receptor is an L-selectin derivative.

5. Contrast media according to claim 1, wherein the receptor is L-selectin.

6. Contrast media according to claim 1, wherein the receptor is an L-selectin-Ig chimera.

7. Contrast media according to claim 1, wherein the signal unit contains a paramagnetic particle.

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8. Contrast media according to claim 1, wherein the signal unit contains a superparamagnetic particle.

9. Contrast media according to claim 6, wherein the signal unit is a superparamagnetic iron oxide particle.

10. Contrast media according to claim 1, wherein the signal unit is a gas-filled particle.

11. Contrast media according to claim 1, wherein the signal unit contains a paramagnetic metal atom.

12. Contrast media according to claim 1, wherein the signal unit contains a heavy metal ion.

13. Contrast media according to claim 1, wherein the signal unit contains an iodine-containing molecule.

14. Contrast media according to claim 1, wherein the signal unit contains a radionuclide.

15. Contrast media according to claim 1, wherein the signal unit contains a dye molecule, which absorbs near-infrared radiation.

16. Contrast media according to one of claims 1 to 16, wherein the receptor is coupled with the aid of a coupling group to the signal unit.

Sub
A' 17. Contrast media according to claim 14, wherein the coupling group is a polyhistidine radical.

18. Process for the production of contrast media for visualization of lymph node changes, inflammatory processes or pathological changes, which are associated with the specific expression of endothelial and/or leukocytic ligands, wherein a

multimerized receptor, which binds to the endothelial ligands, is coupled to a signal unit.

19. Process according to claim 16, wherein the multimerized receptor is an L-selectin-Ig chimera.

20. Process for the production of contrast media for visualization of lymph node changes, inflammatory processes or pathological changes, which are associated with the specific expression of endothelial and/or leukocytic ligands, wherein several receptors that bind to the endothelial ligands are defined and coupled pointing, with the aid of a coupling group, at a signal unit.

21. Process according to claim 18, wherein the coupling group is a polyhistidine radical.

22. Process for the production of contrast media for visualization of lymph node changes, inflammatory processes or pathological changes, which are associated with the specific expression of endothelial and/or leukocytic ligands, wherein the C-terminus of an L-selectin molecule is coupled to a streptavidin, avidin or biotin molecule, the signal unit contains a biotin, streptavidin or avidin molecule, and the coupling is produced by the specific bond between streptavidin and biotin or avidin and biotin when the L-selectin molecules are combined with the signal unit.

23. Use of L-selectin-Ig chimeras for the production of contrast media for the visualization of lymph node changes, inflammatory processes or pathological changes, which are associated with the specific expression of endothelial and/or

leukocytic ligands.